



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/331,729	08/26/1999	FRANK OSAN	514425-3732	2014

23416 7590 05/23/2005

CONNOLLY BOVE LODGE & HUTZ, LLP
P O BOX 2207
WILMINGTON, DE 19899

EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/331,729

Applicant(s)

OSAN ET AL.

Examiner

Janis L. Dote

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,36,38,39,41-53,55 and 56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48 is/are allowed.
- 6) ☒ Claim(s) 35,36,38,39,41-47, 49-53,55 and 56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Art Unit: 1756

1. This office action is responsive to applicants' response filed on Jan. 28, 2005 (cert. mail. Jan. 25, 2005). Claims 35, 36, 38, 39, 41-53, 55, and 56 are pending.

2. The objection to the specification set forth in the office action mailed on Aug. 25, 2004, paragraph 5, has been withdrawn in response to the amendment filed on Jan. 28, 2005, to the paragraph inserted before the last line from the bottom of page 4 of the specification, which was filed on Jun. 28, 2004, and entered upon the filing of the RCE on Aug. 6, 2004.

The rejections of claims 35, 36, 44, 45, 49-51, and 55 under 35 U.S.C. 102(a) over WO 97/05529 (WO'529), as evidenced by applicants' admission at page 21 of the instant specification, and the American Chemical Society (ACS) File Registry No. 361391-57-3; and of claims 38, 39, 41-43, 46, and 47 under 35 U.S.C. 103(a) over WO'529, as evidenced by applicants' admission at page 21 of the instant specification, and the American Chemical Society (ACS) File Registry No. 361391-57-3, set forth in the office action mailed on Aug. 25, 2004, paragraphs 13-17, have been withdrawn. WO'529 has been removed as prior art. Applicants have perfected their claim to foreign priority for the subject matter recited in instant claims 35, 36, 38, 39, 41-47, 49-51, and 55 by filing,

Art Unit: 1756

on Jan. 28, 2005, a verified English-language translation of the priority document Japanese Patent Application Hei 8-348546. The translation provides antecedent basis that meets the requirements of 35 U.S.C. 112, first paragraph, for the subject matter recited in instant claims 35, 36, 38, 39, 41-47, 49-51, and 55.

3. The examiner interprets the term "liquid dried system" recited in claims 53 and 56 as referring to a liquid toner that comprises toner particles that are obtained by a dry polymerization method, which forms toner particles by interfacial polymerization. See instant specification, Toner preparation method 4 at page 17. Applicants in their response filed on Dec. 12, 2000, page 9, lines 4-5, agree with the examiner's interpretation of the term "liquid dried system."

4. The examiner notes that the specification defines the intrinsic viscosity recited in instant claims 35, 48, 49, and 56 as the "inherent viscosity" at 135°C for 1 g of polyolefin resin having a cyclic structure uniformly dissolved in 100 ml of decalin. See the instant specification, page 16, lines 2-4.

According to applicants, the term "aerosol silica" recited in instant claim 53 is a synonym for "colloidal silica." See

Art Unit: 1756

Applicants' response filed on Dec. 12, 2000, page 7,
lines 21-22.

5. The amendment filed on Jun. 28, 2004, which was entered upon the filing of the RCE on Aug. 6, 2004, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The disclosure in the paragraphs inserted at page 4, before the last line, of the specification, describing the conditions set forth in the German Standard DIN 53461-B (January 1987) for determining the values of the heat-distortion temperature (HDT), lacks antecedent basis in the originally filed specification. The originally filed specification defines neither the German standard DIN 53461-B, nor the experimental conditions under which the HDT is determined. Nor does the originally filed specification disclose the date of the particular version of the standard that was used.

Applicants are required to cancel the new matter in the reply to this Office Action.

Art Unit: 1756

Applicants' arguments filed on Jan. 28, 2005, have been fully considered but they are not persuasive.

Applicants assert that the Rule 132 declaration, which was executed by Dr. Klaus Berger on Jan. 6, 2005, and filed on Jan. 28, 2005, establishes that the DIN 53461-B disclosed in the instant specification was the January 1987 revision.

However, the Rule 132 declaration is insufficient to overcome the objection. The declarant states that "one of ordinary skill in the art reading the patent specification of application serial no. 09/331729 would know that the January 1987 version of DIN 53461 was described in the application." However, the declarant does not provide any reasons or evidence that a person having ordinary skill in the art, merely by reading the instant specification, would have known what version of DIN 53461 was used in the instant application. As noted in the objection above, the originally filed specification is silent as to the date of the particular version of the standard that was used. There is no disclosure in the originally filed specification that would have led a person having ordinary skill in the art to the inevitable conclusion that the version of the German DIN standard disclosed in the specification was that of January 1987. As admitted by the declarant, the January 1987 revision of DIN 5361-B was replaced in March 1996 by DIN EN ISO

Art Unit: 1756

75-1 and 75-2. The Japanese priority document of the instant application was filed on Dec. 26, 1996, approximately 9 months after the March 1996 version was issued. Either the 1987 or the 1996 standard could have been used, depending on the date of the invention and on whether the laboratory was using the most recent version.

Furthermore, the declarant states that the March 1996 DIN EN ISO 75-1 and 75-2 is different from the January 1987 version of DIN 53461-B. Declarant states that the March 1996 version is "almost identical with the January 1987 version of DIN 53461-B." The declarant does not identify the differences between the two versions. Nor does the declarant state that whether those differences are not material to the heat distortion temperature recited in the instant claims.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 35, 36, 38, 39, 41-47, 49-52, 55, and 56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims

Art Unit: 1756

contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Claims 35, 49, and 56, and claims dependent thereon, recite a resin having "a heat distortion temperature [HDT] as measured by the DIN 53461-B method of 70°C or higher."

The originally filed specification does not provide an adequate written description of the standard DIN 53561-B as the version of January 1987. The originally filed specification was silent with respect to the version used. See for example, page 4, lines 22-23, of the originally filed specification, which merely discloses HDT as measured by the DIN 53461-B method.

Applicants' arguments filed on Jan. 28, 2005, regarding the Rule 132 declaration filed on Jan. 28, 2005, have been addressed in paragraph 5, supra.

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 52 is rejected under 35 U.S.C. 102(a) as being anticipated by WO 97/05529 (WO'529), as evidenced by applicants'

Art Unit: 1756

admission at page 21 of the instant specification and the American Chemical Society (ACS) File Registry No. 361391-57-3. See the PTO translation of WO'529 for cites.

WO'529 discloses a toner that is within the compositional limitations of the instant claims. The toner comprises a binder resin, charge control agent, a magenta pigment, and a functional imparting agent, such as HOECHST WAX E. See Toner preparation method I at page 11, and Example 2 of Table 2-1 at page 13. The binder resin comprises a polyolefin resin having a cyclic structure comprising polyolefin T745 and the polyolefin having a cyclic structure S-8007. The polyolefin T745 has a number-average molecular weight (Mn) of 3800. See Table 3 at page 15. The polyolefin T745 is within the first resin compositional limitations recited in instant claim 52. The polyolefin S-8007 has a number-average molecular weight (Mn) of 35,000, a weight-average molecular weight (Mw) of 70,000, an intrinsic viscosity of 0.8 dl/g, and a heat distortion temperature determined by the DIN 53461-B of greater than 70°C. The polyolefin resin S-8007 is present in an amount of 33% by weight of the entire binder resin. See Table 3. The polyolefin S-8007 is within the second resin compositional limitations recited in instant claim 52. The polyolefin resin of WO'529 is also within the compositional limitations of the polyolefin having a cyclic structure recited

Art Unit: 1756

in instant claim 52. T745 is identified by the instant specification at page 21 as a copolymer of ethylene and norbornene.

ACS File registry No. 361391B57B3 identifies Hoechst wax E as butylene and ethylene esters of fatty acids, montan-wax.

10. Claims 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO'529, as evidenced by applicants' admission at page 21 of the instant specification and Diamond, Handbook of Imaging Materials, pages 227 and 234, combined with US 5,487,965 (Odell). See the PTO translation of WO'529 for cites.

WO'529 discloses a liquid toner that comprises 60 wt% of a carrier liquid, ISOPAR H, and 40 wt% of a mixture of solids comprising 1 part by weight of carbon black, 0.5 part by weight of a charge control agent, and 98.5 parts by weight of a binder resin, based on 100 parts by weight of solids. The mixture of solids is kneaded in the presence of the carrier liquid in a "sandmill" to form the liquid toner. See the translation, Toner preparation method III, Liquid Toner, page 12, and Example 19 in Table 2-2 at page 14. Example 19 comprises a binder resin comprising the polyolefin having a cyclic structure, T745, which has a Mn of 3800, and the polyolefin having a cyclic structure,

Art Unit: 1756

S-8007. See Table 3 at page 15. The polyolefin having a cyclic structure S-8007 has a Mn of 35,000, Mw of 70,000, an intrinsic velocity of 0.8 dl/g, and a heat distortion temperature determined by DIN 53461-B of greater than 70°C. The polyolefin S-8007 is present in an amount of 39% by weight of the entire binder resin. See Table 3. The polyolefin S-8007 is within the second resin compositional limitations recited in instant claim 56.

WO'529 does not explicitly disclose that the resultant kneaded mixture of solids is toner particles. However, as discussed above, the WO'529 liquid toner is obtained by kneading the mixture of solids in the presence of the carrier liquid in a "sandmill." It is well-known in the art of liquid toners that "liquid toners are charged, colored particles suspended in a nonconductive liquid," where the "liquid toner particles are significantly smaller than dry toner particles." Diamond, page 227, section 6.1, lines 1-5. Diamond further discloses that liquid toners are conventionally obtained by milling pigment with resin and liquid dispersant until a dispersion of a specific particle size has been achieved. Diamond, page 234, section 6.3, lines 1-7. Thus, it is reasonable to conclude that the WO'529 liquid toner comprises toner particles comprising the binder resin, colorant, and charge control agent dispersed in

Art Unit: 1756

the liquid carrier. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

The binder resin in the above liquid toner is not present in the amount of 85 to 95 wt% as recited in instant claim 53. Nor does the liquid toner comprise a wax as recited in instant claim 53. However, WO'529 discloses that liquid toners can comprise 15 to 50 wt% of binder resin, 0-10 wt% of colorant, 0-5 wt% of a charge control agent, 0-10 wt% of a functioning agent, such as a wax, and 50 to 70 wt% of an liquid carrier, based on the total weight of the liquid toner. Translation, Table 1 at page 3. Thus, the reference teaches that the toner particles can be present in an amount of 30 to 50 wt% based on the total weight of the liquid toner, where the binder resin and the wax may be present in the toner particles in amounts of 50 to 100 wt% to 0 to 20 wt%, respectively. The binder resin amount range of 50 to 100 wt% encompasses the range of 85 to 95 wt% recited in instant claim 53. The wax amount of 0 to 20 wt% overlaps the range of 1 to 10 wt% recited in instant claim 53. WO'529 further discloses that the incorporation of a function imparting agent, such as a wax, increases the anti-offset properties for hot-roller fixing. Translation, page 10, lines 20-21. Accordingly, the amounts of binder resin and wax are result-effective variables, the variation of which

Art Unit: 1756

are presumably within the skill of the ordinary worker in the art.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of WO'529, to vary the amount of the binder resin, through routine experimentation, in the liquid toner disclosed by WO'529, such that the amount would be within the range of 85 to 95 wt% as recited in instant claim 53, and to add a wax in the amount as recited in instant claim 53, because that person would have had a reasonable expectation of successfully obtaining a liquid toner having the properties disclosed by WO'529. Translation, page 2, lines 8-13.

WO'529 does not disclose that the toner particles further comprise aerosol silica as recited in instant claim 53.

Odell teaches that surface additives, such as colloidal silica, in amounts of about 0.3 to about 3 weight percent of the total weight of the toner may be added to the toner particles to enhance the development properties and performance of the liquid toner. Col. 10, line 66, to col. 11, line 6. The record shows that the amount of about 0.3 to about 3 wt% overlaps the range of 0.1 to 2 wt% recited in instant claim 53. The amount of the colloidal silica is a result-effective variable, variation of

Art Unit: 1756

which is presumably within the skill of the ordinary person in the art.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Odell, to add colloidal silica in an amount as recited in instant claim 53, because that person would have had a reasonable expectation of successfully obtaining a liquid toner having improved development properties and performance as disclosed by Odell.

Instant claims 53 and 56 recite "a dried polymerized system". In other words, the toner particles are made by a dried polymerization method. These claims are written in product-by-process format. The toner particles in the liquid toner exemplified in example 19 of WO'529 are not made by the dried polymerized method recited in the instant claim. However, as discussed above, the toner particles rendered obvious over the teachings of WO'529 combined Odell meet the compositional limitations recited in the instant claims, and are used for the same purpose as applicants, as toner particles in a liquid toner. Thus, it appears that the toner particles rendered obvious over the cited prior art are the same or substantially the same as those made by the process recited in the instant claims. The burden is on applicants to prove otherwise. In re

Art Unit: 1756

Marosi, 218 USPQ 289 (Fed. Cir. 1983); In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985); MPEP 2113.

11. Applicants' arguments filed on Jan. 28, 2005, regarding the rejections over WO'529 set forth in paragraphs 9 and 10 above have been fully considered but they are not persuasive.

Applicants assert that the WO'529 is not prior art. Applicants assert that claims 52, 53, and 56 are supported by the verified translation of the priority document filed on Jan. 28, 2005.

However, the verified translation does not provide an adequate written description as required under 35 U.S.C. 112, first paragraph, of the subject matter recited in instant claims 52, 53, and 56 for the following reasons:

(1) The translation does not disclose the polycyclic compounds "tetracyclododecane" and "dicyclopentadiene" recited in instant claim 52. Rather, the translation only discloses the cyclic olefins "cyclohexane [sic: cyclohexene]" and "norbornene." Applicants in their response filed on Jan. 28, 2005, page 13, lines 7-8, admit that the translation does not disclose the compounds tetracyclododecane and dicyclopentadiene.

Applicants assert that they have properly antedated WO'529 with respect to claim 52 because WO'529 only discloses

Art Unit: 1756

cyclohexene and norbornene and does not disclose tetracyclo-dodecane and dicyclopentadiene.

Applicants' assertion is not persuasive. "The filing date of the priority document is not perfected unless applicant has filed a certified priority document in the application (and an English language translation if the document is not in English) . . . and the examiner has established that the priority document satisfies the enablement and description requirements of 35 U.S.C. 112, first paragraph" (emphasis added). See MPEP 706.02(b), page 700-25, first column, last full paragraph (8th edition, Rev. 2, May 2004). For the reasons discussed above, the verified English-language translation filed on Jan. 28, 2005, does not fulfill the written description requirement under 35 USC 112, for the subject matter recited in instant claim 52. Accordingly, the rejection of claim 52 over WO'529 set forth in paragraph 9 above stands.

(2) The translation does not disclose that the following components are present in the amounts in the dried polymerized system recited in instant claims 53 and 56: (1) 0.5% by weight to 5% by weight of a charge control agent; (2) 1% by weight to 10% by weight of a wax; (3) 0.1 % by weight to 2% by weight of aerosol silica; (4) 1% by weight to 10% by weight of pigment; and (5) 85% by weight to 95% by weight of a binder resin.

Art Unit: 1756

Rather, the translation discloses a dry polymerized toner comprising: (1) 50-100 wt% of a binder resin; (2) 0 to 20 wt% of a colorant; (3) 0-10 wt% of a charge control agent; (4) 0-20 wt% of a function-imparting agent. See the translation, page 4, Table 1, dry polymerized toner. The translation does not appreciate the amounts recited in instant claims 53 and 56. Applicants in their response filed on Jan. 28, 2005, page 13, 15-16, admit that "there is not literal support for the complete range [sic: amount ranges]."

Applicants assert that because Example 30 provides an embodiment that supports claim 53, they believe that "the translation supplies enough support to antedate WO'529."

Applicants' assertion is not persuasive. The benefit of priority under 35 U.S.C. 119 and 120 is accorded only for claims that are supported, in the sense of 35 U.S.C. 112, first paragraph. As applicants admit, the present priority document does not describe the full scope of the present claims. Accordingly, the rejection of claims 53 and 56 over WO'529 set forth in paragraph 10 above stands.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple

Art Unit: 1756

assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claim 49 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,846,602 B2 (Suwa) in view of Diamond, Handbook of Imaging Materials, pp. 168-169.

Reference claim 4, which depends from reference claim 1, covers a full-color toner comprising as the binder resin a cyclo-olefin copolymer resin having a number-average molecular weight of 3,000-6,000, and a wax as the releasing agent (i.e., function imparting agent). The cyclo-olefin copolymer resin is within the first polyolefin resin having a cyclic structure recited in instant claim 49. Reference 7, which depends from reference claim 1, requires that the toner in reference claim 1 further comprise a charge control agent.

The claims of Suwa do not recite the presence of a colorant as recited in instant claim 49. However, as discussed above,

Art Unit: 1756

the reference claim covers a full-color toner. The use of color coloring agents is well known in the art. Diamond (published in 1991) discloses that the "use of pigments other than black are increasingly playing a role in xerography in two applications. A major application is in the creation of full color documents. Here the subtractive set of pigments, cyan, magenta, and yellow, is used." Diamond, page 168, lines 30-36. Diamond discloses that copper phthalocyanine can be used for cyans and blues, azo pigments for yellows, and quinacridones or rhodamines for magentas and reds. Diamond, page 169, lines 1-3.

It would have been obvious for a person having ordinary skill in the art, in view of the subject matter recited in the claims of Suwa and Diamond, to incorporate a color colorant, such as a cyan, a yellow, or a magenta colorant as taught by Diamond in full-color toner recited in the claims of Suwa because that person would have had a reasonable expectation of successfully obtaining a color toner that can be used in an electrophotographic process for forming a full color image.

14. Claim 49 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,790,577 B1 (Nakamura) in view

of Diamond, Handbook of Imaging Materials, p. 169,
section 4.2.3.

Reference claim 6, which depends from reference claim 1, covers a toner comprising a colorant, a wax (i.e., function imparting agent), and a binder resin comprising an olefin copolymer having a cyclic structure, which has a number-average molecular weight from 100 to 20,000. The number-average molecular weight range of 100 to 20,000 overlaps the range of less than 7,500 of the first polyolefin resin recited in instant claim 49.

The claims of Nakamura do not recite the presence of a charge control agent as recited in instant claim 49. However, the use of positive or negative charge control agents is well known in the art. Diamond discloses that it is known to add charge control additives to toners when blending the pigment (i.e., colorant) into the polymer resin does not give an adequate charge level or rate of charging. Diamond further discloses a number of known charge control agents, including nigrosine and metal complexes, that effectively give the toner a positive or negative charge. Thus, Diamond's teachings apply to both negative and positive charging applications. Diamond, page 169, section 4.2.3.

It would have been obvious for a person having ordinary

Art Unit: 1756

skill in the art, in view of the subject matter recited in the claims of Nakamura and Diamond, to add a charge control agent, such as nigrosine, to the toner recited in the claims of Nakamura because that person would have had a reasonable expectation of successfully obtaining chargeable toner particles having an adequate charge level and rate of charging.

15. Claim 48 is allowable over the prior art of record.

WO'529 does not teach or suggest a toner comprising a polyolefin having a cyclic structure comprising at least three resins or resin fractions as recited in instant claim 48.

16. This office action was not made final due to the obviousness-type double patenting rejections set forth in paragraphs 13 and 14 supra.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Art Unit: 1756

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD
May 13, 2005

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP ~~1500~~
1700